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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/026,286

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Yoshiaki Mori

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EPSON RESEARCH AND DEVELOPMENT INC
INTELLECTUAL PROPERTY DEPT
2580 ORCHARD PARKWAY, SUITE 225
SAN JOSE, CA 95131

EXAMINER

CHACKO DAVIS, DABORAH

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

01/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/026,286	Applicant(s) MORI ET AL.	
	Examiner DABORAH CHACKO DAVIS	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/16/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 65-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 65-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-22, and 65-69, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-22, recite "In an absence of electroplating and non-electric plating". The specification, as originally filed, does not recite that the coating process or pattern forming method excludes an electroplating method or a non-electric plating method. The specification discloses a pattern forming method, and in some instances suggest inkjet printing or spin coating or spray coating. However, the specification does not enable one of ordinary skill in the art that the liquid pattern material formation process is not a non-electric plating process or an electroplating process. Appropriate correction is required.
3. Claims 3, 7, and 67, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 3, recites in step b), the following,

b) a pattern material supplying process for supplying a conductive liquid-pattern material to said pattern-forming openings without submerging said workpiece surface in said liquid-pattern material;

Claim 67, recites, the following,

67. (Currently Amended) The pattern forming method of claim 1, said electrically conductive liquid pattern ~~material~~ solution is supplied to said pattern forming opening of said mask without submerging said workpiece in said electrically conductive liquid pattern ~~material~~ solution.

This is not disclosed in the specification. The specification, in some instances, discloses that inkjet printing or spin coating or spray coating is performed. However, none of these methods suggest or imply that the substrate (or workpiece) that is coated upon is not, at any instance, submerged with the liquid pattern material.

Claim 7, in step d), recites the following,

d) a solid-material removal process for selectively removing the solidified second solid solute and not removing the first solid solute; ~~elements of the liquid-pattern material that adhered to the mask surface; and~~

The specification, as originally filed, does not disclose a first solid solute or a second solid solute, and the specification does not disclose selectively removing the second solid solute and not removing the first solid solute.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 10-12, 65, 68-69, are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent Application Publication No. 2002/0076495 (Maloney et al., hereinafter referred to as Maloney).

Maloney, in [0006], through [0016], discloses depositing metal complex precursor solution in patterned films such that the desired material is embedded in the openings of the previously patterned (masks) substrate, and the metal precursors deposited can then exposed to energy sources (thermal or heat treatment) that dries the deposited material and solidifies the material to form the pattern in the openings, and the remaining mask is removed via etching i.e., etching would remove the remaining masks, and heat the substrate (i.e., anneal) that has a remaining solute (metal complex) in the form of a pattern; the metal precursor comprise the same material as that claimed i.e., organometallic solution (metal complex organic precursor), and the mask is a photoresist mask that is hydrophobic (claims 1-3, 10-12, and 65). Maloney, in [0187], discloses that the metal organic solution can be coated via inkjet printing (claims 68-69).

Response to Arguments

6. Applicant's arguments, see Remarks, filed September 16, 2008, with respect to the rejection(s) of claim(s) 1-22, 65-69, have been fully considered and are persuasive.

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Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over claims 1-3, 10-12, 65, and 68-69. See paragraph no. 5, above.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daborah Chacko-Davis whose telephone number is (571) 272-1380. The examiner can normally be reached on M-F 9:30 - 6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Daborah Chacko-Davis/

Examiner, Art Unit 1795

January 21, 2009.